

SUITABILITY GROUP A-1

(Loamy Bottomland)

Description: Deep, well drained or moderately well drained soils with loamy surfaces and loamy or clayey subsoils. Soils in this subgroup occur on floodplains and terraces which receive extra moisture from adjoining areas. (Soils with a clayey subsoil have at least 14 inches of loamy material above the subsoil.)

Limitations: Soils in this subgroup can have slight wetness and slight salinity or alkalinity.

Soils: Kaski loam  
Kaw silt loam

Recommended Species: See chart on next page.

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SPECIES	SPECIES ADAPTABILITY 1 /		SPECIES PRODUCTIVITY 2 /	GRAZING PREFERENCE 3 /	STAND ESTABLISHMENT 4 /	FERTILIZER NEEDS 5 /			PH RANGE 6 /	DROUGHT TOLERANCE
	DRYLAND	IRRIGATED				N	P	K		
WARM SEASON GRASSES										
BERMUDAGRASS	SS	BS	9	5	2-3	1-3	0-2	1-2	5.5-8.0	FAIR
HARDIE	SS	BS	9	4	2-3	1-3	0-2	1-2	5.5-8.0	FAIR
MIDLAND	SS	BS	9	5	2-3	1-3	0-2	1-2	5.5-8.0	FAIR
BIG BLUESTEM	7	8	5	7	2-3	0-1	0	0	6.0-7.5	FAIR-GOOD
KAW	7	8	6	7	2-3					FAIR-GOOD
EASTERN GAMAGRASS	6	9	10	8	2-4	0-3	0-2	0-1	5.5-7.5	FAIR
INDIANGRASS	7	8	5	7	1-3	0-1	0	0	5.5-7.5	FAIR
CHEYENNE	7	8	6	7	1-3					FAIR
OSAGE	6	8	6	7	1-3					FAIR
SWITCHGRASS	7	8	5	5	1-2	0-2	0	0	5.5-8.0	GOOD
BLACKWELL	7	8	6	5	1-2					GOOD
COOL SEASON GRASSES										
ORCHARDGRASS	0	7	6	7	1-2	1-2	1-2	0-2	5.5-7.0	POOR
LATAR	0	7	7	7	1-2					POOR
REED CANARYGRASS	3	6	7	6	1-2	1-2	1-2	0-2	5.5-7.0	POOR
IGREED	3	6	8	6	1-2					POOR
RISE	2	5	8	6	1-2					POOR
SMOOTH BROMEGRASS	5	8	6	7	1	1-2	1-2	0-2	5.5-7.0	FAIR
ACHENBACH	5	8	7	7	1					FAIR
LINCOLN	4	7	7	7	1					FAIR
SOUTHLAND	5	8	7	7						FAIR
TALL FESCUE	4	8	6	4		1-2	1-2	0-2	6.2-7.0	POOR
KENTUCKY-31	4	8	7	4	1					POOR
WHEATGRASS										
INTERMEDIATE	6	7	5	4	1-2	1-2	1-2	0-1	6.0-7.5	FAIR
SLATE	6	7	6	4	1-2					FAIR
TALL	6	8	5	4	1-2	1-2	1-2	0-1	7.0-8.5	FAIR
JOSE	6	8	6	4	1-2					FAIR
WESTERN	7	8	4	5	1-3	0-1	0-1	0-1	6.5-8.5	GOOD
BARTON	7	8	5	5	1-3					GOOD
LEGUMES										
ALFALFA (STANDARD)	6	9	10	8	1	0-1	1-3	1-3	6.5-8.0	GOOD
(RHIZOMATOUS)	5	8	7	8	1-2	0-1	1-3	1-2	6.5-8.0	GOOD

1 / ADAPTABILITY - 0=NOT ADAPTED, 1-3=POOR, 4-6=FAIR, 7-9=GOOD; N=NORTH OF THE SMOKY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES ONLY.

2 / SPECIES PRODUCTIVITY - A POTENTIAL ANIMAL UNIT MONTH RATING FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9, SHOULD GIVE A POTENTIAL AUM PRODUCTIVITY RATING OF THIS SPECIES OR CULTIVAR ON THIS GROUP.

3 / GRAZING PREFERENCE - SCALE 1 - 8, (1=POOR, 8=EXCELLENT).

4 / STAND ESTABLISHMENT - NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.

5 / FERTILIZER NEEDS - 0=NONE; 1=10-50 POUNDS OF N, 20-40 POUNDS OF P, 20-40 POUNDS OF K; 2=50-100 POUNDS OF N, 40-60 POUNDS OF P, 40-70 POUNDS OF K; 3=100+ POUNDS OF N, 60+ POUNDS OF P, 70+ POUNDS OF K; THE FIRST CATEGORY IS WHAT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEGORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALWAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.

6 / PH RANGE - LOW AND HIGH PH RECOMMENDED FOR THE SPECIES.

SUITABILITY GROUP A-2

(Loamy)

**Description:** Deep, well drained or moderately well drained soils with loamy surfaces and loamy or clayey subsoils. Soils in this subgroup occur on uplands and receive little or no extra moisture from adjoining areas. (Soils with a clayey subsoil have at least 14 inches of loamy material above the subsoil.)

**Limitations:** Few or no limitations. Soils in this subgroup can have slight wetness and slight salinity or alkalinity.

**Soils:** Farnum loam, sandy loam, complex  
Ost clay loam  
Shellabarger fine sandy loam

**Recommended Species:** See chart on next page.

LRA: 79  
SUITABILITY GROUP: A-2

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SPECIES	SPECIES ADAPTABILITY 1 /		SPECIES PRODUCTIVITY 2 /	GRAZING PREFERENCE 3 /	STAND ESTABLISHMENT 4 /	FERTILIZER NEEDS 5 /			PH RANGE 6 /	DROUGHT TOLERANCE
	DRYLAND	IRRIGATED				N	P	K		
WARM SEASON GRASSES										
BIG BLUESTEM	6	8	5	7	2-3	0-1	0	0	6.0-7.5	FAIR-GOOD
KAN	6	8	6	7	2-3					FAIR-GOOD
EASTERN GAMAGRASS	3	8	10	8	2-4	0-3	0-2	0-1	5.5-7.5	FAIR
INDIANGRASS	6	7	5	7	1-3	0-1	0	0	5.5-7.5	FAIR
CHEYENNE	6	7	6	7	1-3					FAIR
OSAGE	5	7	6	7	1-3					FAIR
SIDEGRASS GRAMA	8	7	3	5	1-3	0-1	0	0	6.0-7.5	GOOD
EL RENO	8	7	4	5	1-3					GOOD
SWITCHGRASS	6	7	5	5	1-2	0-2	0	0	5.5-8.0	GOOD
BLACKWELL	6	7	6	5	1-2					GOOD
COOL SEASON GRASSES										
REED CANARYGRASS	0	5	7	6	1-2	1-2	1-2	0-2	5.5-7.0	POOR
IDREED	0	5	8	6	1-2					POOR
RISE	0	5	8	6	1-2					POOR
SMOOTH BROMEGRASS	4	7	6	7	1	1-2	1-2	0-2	5.5-7.0	FAIR
ACHENBACH	4	7	7	7	1					FAIR
LINCOLN	4	7	7	7	1					FAIR
SOUTHLAND	4	7	7	7	1					FAIR
TALL FESCUE	0	8	6	4	1	1-2	1-2	0-2	6.2-7.0	POOR
KENTUCKY 31	0	8	7	4	1					POOR
WHEATGRASS										
INTERMEDIATE	5	7	5	4	1-2	1-2	1-2	0-1	6.0-7.5	FAIR
SLATE	5	7	6	4	1-2					FAIR
TALL	5	7	5	4	1-2	1-2	1-2	0-1	7.0-8.5	FAIR
JOSE	5	7	6	4	1-2					FAIR
WESTERN	6	8	4	5	1-3	0-1	0-1	0-1	6.5-8.5	GOOD
BARTON	6	8	5	5	1-3					GOOD
LEGUMES										
ALFALFA (STANDARD)	4	8	10	8		0-1	1-3	1-3	6.5-8.0	GOOD
(RHIZOMATOUS)	3	7	7	8	1-2	0-1	1-3	1-2	6.5-8.0	GOOD

1 / ADAPTABILITY - 0=NOT ADAPTED, 1-3=POOR, 4-6=FAIR, 7-9=GOOD; N=NORTH OF THE SMOKY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES ONLY.

2 / SPECIES PRODUCTIVITY - A POTENTIAL ANIMAL UNIT MONTH RATING FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9, SHOULD GIVE A POTENTIAL AUM PRODUCTIVITY RATING OF THIS SPECIES OR CULTIVAR ON THIS GROUP.

3 / GRAZING PREFERENCE - SCALE 1 - 8, (1=POOR, 8=EXCELLENT).

4 / STAND ESTABLISHMENT - NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.

5 / FERTILIZER NEEDS - 0=NONE; 1=10-50 POUNDS OF N, 20-40 POUNDS OF P, 20-40 POUNDS OF K; 2=50-100 POUNDS OF N, 40-60 POUNDS OF P, 40-70 POUNDS OF K; 3=100+ POUNDS OF N, 60+ POUNDS OF P, 70+ POUNDS OF K. THE FIRST CATEGORY IS WHAT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEGORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALWAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.

6 / PH RANGE - LOW AND HIGH PH RECOMMENDED FOR THE SPECIES.

SUITABILITY GROUP A-3  
(Coarse Loamy Bottomlands)

- Description:** Deep, well drained or moderately well drained soils with loamy surfaces and subsoils. Soils in this subgroup have moderately coarse-textured surfaces, occur on lowlands, and may receive extra moisture from adjoining areas.
- Limitations:** Lack of moisture and soil blowing may be hazards during establishment of pasture.
- Soils:** Canadian sandy loam, fine sandy loam

**Recommended Species:** See chart on next page.

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LRA: 79  
 SUITABILITY GROUP: A-3

SPECIES	SPECIES ADAPTABILITY 1 /		SPECIES PRODUCTIVITY 2 /	GRAZING PREFERENCE 3 /	STAND ESTABLISHMENT 4 /	FERTILIZER NEEDS 5 /			PH RANGE 6 /	DROUGHT TOLERANCE
	DRYLAND	IRRIGATED				N	P	K		
WARM SEASON GRASSES										
BERMUDAGRASS	5	8	9	5	2-3	1-3	0-2	1-2	5.5-8.0	FAIR
HARDIE	5	8	9	4	2-3					FAIR
MIDLAND	5	8	9	5	2-3					FAIR
BIG BLUESTEM	7	8	5	7	2-3	0-1	0	0	6.0-7.5	FAIR-GOOD
KAW	7	8	6	7	2-3					FAIR-GOOD
EASTERN GAMAGRASS	6	9	10	8	2-4	0-3	0-2	0-1	5.5-7.5	FAIR
INDIANGRASS	7	8	5	7	1-3	0-1	0	0	5.5-7.5	FAIR
CHEYENNE	7	8	6	7	1-3					FAIR
OSAGE	6	8	6	7	1-3					FAIR
SAND BLUESTEM	7	8	5	7	1-3	0-1	0-1	0-1	5.5-7.5	FAIR-GOOD
WOODWARD	7	8	6	7	1-3					FAIR-GOOD
SWITCHGRASS	7	8	5	5	1-2	0-2	0	0	5.5-8.0	GOOD
BLACKWELL	7	8	6	5	1-2					GOOD
COOL SEASON GRASSES										
ORCHARDGRASS	0	7	6	7	1-2	-2	-2	0-2	5.5-7.0	POOR
LATAH	0	7	7	7	1-2					POOR
REED CANARYGRASS	3	6	7	6	1-2	-2	-2	0-2	5.5-7.0	POOR
IOREED	3	6	8	6	1-2					POOR
RISE	2	5	8	6	1-2					POOR
SMOOTH BROMEGRASS	5	8	6	7	1	-2	1-2	0-2	5.5-7.0	FAIR
ACHENBACH	5	8	7	7	1					FAIR
LINCOLN	4	7	7	7	1					FAIR
SOUTHLAND	5	8	7	7	1					FAIR
TALL FESCUE	4	8	6	4	1	-2	-2	0-2	6.2-7.0	POOR
KENTUCKY 31	4	8	7	4	1					POOR
WHEATGRASS										
INTERMEDIATE	6	7	5	4	1-2	1-2	1-2	0-1	6.0-7.5	FAIR
SLATE	6	7	6	4	1-2					FAIR
TALL	6	8	5	4	1-2	1-2	1-2	0-1	7.0-8.5	FAIR
JOSE	6	8	6	4	1-2					FAIR
WESTERN	7	8	4	5	1-3	0-1	0-1	0-1	6.5-8.5	GOOD
BARTON	7	8	5	5	1-3					GOOD
LEGUMES										
ALFALFA (STANDARD)	6	9	10	8	1	0-1	1-3	1-3	6.5-8.0	GOOD
(RHIZOMATOUS)	5	8	7	8	1-2	0-1	1-3	1-2	6.5-8.0	GOOD

1 / ADAPTABILITY - 0=NOT ADAPTED, 1-3=POOR, 4-6=FAIR, 7-9=GOOD; N=NORTH OF THE SMOKY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES ONLY.

2 / SPECIES PRODUCTIVITY - A POTENTIAL ANIMAL UNIT MONTH RATING FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9, SHOULD GIVE A POTENTIAL AUM PRODUCTIVITY RATING OF THIS SPECIES OR CULTIVAR ON THIS GROUP.

3 / GRAZING PREFERENCE - SCALE 1 - 8, (1=POOR, 8=EXCELLENT).

4 / STAND ESTABLISHMENT - NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.

5 / FERTILIZER NEEDS - 0=NONE; 1=10-50 POUNDS OF N, 20-40 POUNDS OF P, 20-40 POUNDS OF K; 2=50-100 POUNDS OF N, 40-60 POUNDS OF P, 40-70 POUNDS OF K; 3=100+ POUNDS OF N, 60+ POUNDS OF P, 70+ POUNDS OF K. THE FIRST CATEGORY IS WHAT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEGORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALWAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.

6 / Ph RANGE - LOW AND HIGH Ph RECOMMENDED FOR THE SPECIES.

SUITABILITY GROUP A-4

(Sands)

Description: Deep, well drained to excessively drained soils with sandy surfaces and subsoils. Available water holding capacity in the 40-inch root zone is less than four inches.

Limitations: Choice of plants is limited by droughtiness and low fertility. Lack of moisture and soil blowing may be a hazard during establishment of recommended species.

Soils: Pratt loamy fine sand, fine sand, complex  
Tivoli loamy fine sand, fine sand, soils, complex 1/

1/ Suitable only when irrigated

Recommended Species: See chart on next page.

LRA: 79  
SUITABILITY GROUP: A-4

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SPECIES	SPECIES ADAPTABILITY 1 /		SPECIES PRODUCTIVITY 2 /	GRAZING PREFERENCE 3 /	STAND ESTABLISHMENT 4 /	FERTILIZER NEEDS 5 /			PH RANGE 6 /	DROUGHT TOLERANCE
	DRYLAND	IRRIGATED				N	P	K		
WARM SEASON GRASSES										
BERMUDAGRASS	4	7	9	5	2-3	1-3	0-2	1-2	5.5-8.0	FAIR
HARDIE	4	7	9	4	2-3					FAIR
MIDLAND	4	7	9	5	2-3					FAIR
BIG BLUESTEM	5	7	5	7	2-3	0-1	0	0	6.0-7.5	FAIR-GOOD
KAN	5	7	6	7	2-3					FAIR-GOOD
EASTERN GAMAGRASS	3	8	10	8	2-4	0-3	0-2	0-1	5.5-7.5	FAIR
INDIANGRASS	5	7	5	7	1-3	0-1	0	0	5.5-7.5	FAIR
CHEYENNE	5	7	6	7	1-3					FAIR
PRAIRIE SANDREED	7	8	5	3	2-3	0-1	0-1	0-1	5.5-7.0	GOOD
GOSSEN	7	8	6	3	2-3					GOOD
SAND BLUESTEM	7	8	5	7	1-3	0-1	0-1	0-1	5.5-7.5	FAIR-GOOD
WOODWARD	7	8	6	7	1-3					FAIR-GOOD
SIDEOTS GRAMA	6	7	3	5	1-3	0-1	0	0	6.0-7.5	GOOD
EL RENO	6	7	4	5	1-3					GOOD
SWITCHGRASS	6	7	5	5	1-2	0-2	0	0	5.5-8.0	GOOD
BLACKWELL	6	7	6	5	1-2					GOOD
COOL SEASON GRASSES										
CREeping FOXTAIL	0	5	6	7	1-2	1-2	1-2	0-2	5.5-7.0	POOR
GARRISON	0	5	7	7	1-2					POOR
ORCHARDGRASS	0	7	6	7	1-2	1-2	1-2	0-2	5.5-7.0	POOR
LATAR	0	7	7	7	1-2					POOR
SMOOTH BROMEGRASS	4	7	6	7		1-2	1-2	0-2	5.5-7.0	FAIR
ACHENBACH	4	7	7	7						FAIR
LINCOLN	4	7	7	7	1					FAIR
SOUTHLAND	4	7	7	7	1					FAIR
TALL FESCUE	0	7	6	4		1-2	1-2	0-2	6.2-7.0	POOR
KENTUCKY 31	0	7	7	4						POOR
WHEATGRASS										
INTERMEDIATE	0	7	5	4	1-2	1-2	1-2	0-1	6.0-7.5	FAIR
SLATE	0	7	6	4	1-2					FAIR
LEGUMES										
ALFALFA (STANDARD)	3	8	10	8		0-1	1-3	1-3	6.5-8.0	GOOD
(RHIZOMATOUS)	2	7	7	8	1-2	0-1	1-3	1-2	6.5-8.0	GOOD

1 / ADAPTABILITY - 0=NOT ADAPTED, 1-3=POOR, 4-6=FAIR, 7-9=GOOD; N=NORTH OF THE SMOKY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES ONLY.

2 / SPECIES PRODUCTIVITY - A POTENTIAL ANIMAL UNIT MONTH RATING FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9, SHOULD GIVE A POTENTIAL AUM PRODUCTIVITY RATING OF THIS SPECIES OR CULTIVAR ON THIS GROUP.

3 / GRAZING PREFERENCE - SCALE 1 - 8, (1=POOR, 8=EXCELLENT).

4 / STAND ESTABLISHMENT - NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.

5 / FERTILIZER NEEDS - 0=NONE; 1=10-50 POUNDS OF N, 20-40 POUNDS OF P, 20-40 POUNDS OF K; 2=50-100 POUNDS OF N, 40-60 POUNDS OF P, 40-70 POUNDS OF K; 3=100+ POUNDS OF N, 60+ POUNDS OF P, 70+ POUNDS OF K. THE FIRST CATEGORY IS WHAT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEGORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALWAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.

6 / Ph RANGE - LOW AND HIGH Ph RECOMMENDED FOR THE SPECIES.



SUITABILITY GROUP A-6  
(Coarse Loamy Upland)

Description: Deep, well drained soils with loamy surfaces and subsoils  
Soils in this subgroup have moderately coarse-textured  
surfaces and occur on uplands.

Limitations: Lack of moisture and soil blowing may be hazards during  
establishment of recommended species.

Soils: Albion sandy loam  
Attica sandy loam, fine sandy loam, loamy fine sand, complex  
Naron loam, fine sandy loam, complex

Recommended Species: See chart on next page.

SPECIES	SPECIES ADAPTABILITY 1 /		SPECIES PRODUCTIVITY 2 /	GRAZING PREFERENCE 3 /	STAND ESTABLISHMENT 4 /	FERTILIZER NEEDS 5 /			PH RANGE 6 /	DROUGHT TOLERANCE
	DAYLAND	IRRIGATED				N	P	K		
WARM SEASON GRASSES										
BERMUDAGRASS	2	7	9	5	2-3	1-3	0-2	1-2	5.5-8.0	FAIR
HARDIE	2	7	9	4	2-3					FAIR
MIDLAND	2	7	9	5	2-3					FAIR
BIG BLUESTEM	6	8	5	7	2-3	0-1	0	0	6.0-7.5	FAIR-GOOD
KAW	6	8	6	7	2-3					FAIR-GOOD
EASTERN GAMAGRASS	3	8	10	8	2-4	0-3	0-2	0-1	5.5-7.5	FAIR
INDIANGRASS	6	8	5	7	1-3	0-1	0	0	5.5-7.5	FAIR
CHEYENNE	6	8	6	7	1-3					FAIR
OSAGE	5	7	6	7	1-3					FAIR
SAND BLUESTEM	6	8	5	7	1-3	0-1	0-1	0-1	5.5-7.5	FAIR-GOOD
WOODWARD	6	8	6	7	1-3					FAIR-GOOD
SIDEOTS GRAMA	8	7	3	5	1-3	0-1	0	0	6.0-7.5	GOOD
EL RENO	8	7	4	5	1-3					GOOD
SWITCHGRASS	6	7	5	5	1-2	0-2	0	0	5.5-8.0	GOOD
BLACKWELL	6	7	6	5	1-2					GOOD
COOL SEASON GRASSES										
REED CANARYGRASS	0	5	7	6	1-2	1-2	1-2	0-2	5.5-7.0	POOR
TOREED	0	5	8	6	1-2					POOR
RISE	0	5	8	6	1-2					POOR
SMOOTH BROMEGRASS	4	8	6	7		1-2	1-2	0-2	5.5-7.0	FAIR
ACHENBACH	4	8	7	7						FAIR
LINCOLN	4	8	7	7	1					FAIR
SOUTHLAND	4	8	7	7						FAIR
TALL FESCUE	0	8	6	4		1-2	1-2	0-2	6.2-7.0	POOR
KENTUCKY 31	0	8	7	4						POOR
WHEATGRASS										
INTERMEDIATE	5	7	5	4	1-2	1-2	1-2	0-1	6.0-7.5	FAIR
SLATE	5	7	6	4	1-2					FAIR
TALL	5	7	5	4	1-2	1-2	1-2	0-1	7.0-8.5	FAIR
JOSE	5	7	6	4	1-2					FAIR
WESTERN	6	8	4	5	1-3	0-1	0-1	0-1	6.5-8.5	GOOD
BARTON	6	8	5	5	1-3					GOOD
LEGUMES										
ALFALFA (STANDARD)	4	8	10	8	1	0-1	1-3	1-3	6.5-8.0	GOOD
(RHIZOMATOUS)	3	7	7	8	1-2	0-1	1-3	1-2	6.5-8.0	GOOD

1 / ADAPTABILITY - 0=NOT ADAPTED, 1-3=POOR, 4-6=FAIR, 7-9=GOOD; N=NORTH OF THE SMOKY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES ONLY.

2 / SPECIES PRODUCTIVITY - A POTENTIAL ANIMAL UNIT MONTH RATING FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9, SHOULD GIVE A POTENTIAL AUM PRODUCTIVITY RATING OF THIS SPECIES OR CULTIVAR ON THIS GROUP.

3 / GRAZING PREFERENCE - SCALE 1 - 8, (1=POOR, 8=EXCELLENT).

4 / STAND ESTABLISHMENT - NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.

5 / FERTILIZER NEEDS - 0=NONE; 1=10-50 POUNDS OF N, 20-40 POUNDS OF P, 20-40 POUNDS OF K; 2=50-100 POUNDS OF N, 40-60 POUNDS OF P, 40-70 POUNDS OF K; 3=100+ POUNDS OF N, 60+ POUNDS OF P, 70+ POUNDS OF K. THE FIRST CATEGORY IS WHAT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEGORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DAYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALWAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.

6 / PH RANGE - LOW AND HIGH PH RECOMMENDED FOR THE SPECIES.

SUITABILITY GROUP A-7

(Deep Limy)

Description: Deep, well drained or somewhat excessively drained soils with loamy surfaces and subsoils that contain lime throughout the profile.

Limitations: Soils in this subgroup are slightly affected by limy surfaces and subsoils.

Soils: Clark loam, clay loam, complex

Recommended Species: See chart on next page.

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SPECIES	SPECIES ADAPTABILITY 1 /		SPECIES PRODUCTIVITY 2 /	GRAZING PREFERENCE 3 /	STAND ESTABLISHMENT 4 /	FERTILIZER NEEDS 5 /			PH RANGE 6 /	DROUGHT TOLERANCE
	DRYLAND	IRRIGATED				N	P	K		
WARM SEASON GRASSES										
BIG BLUESTEM	6	8	5	7	2-3	0-1	0	0	6.0-7.5	FAIR-GOOD
KAW	6	8	6	7	2-3					FAIR-GOOD
INDIANGRASS	5	7	5	7	1-3	0-1	0	0	5.5-7.5	FAIR
CHEYENNE	5	7	6	7	1-3					FAIR
SIDEOTS GRAMA	8	7	3	5	1-3	0-1	0	0	6.0-7.5	GOOD
EL RENO	8	7	4	5	1-3					GOOD
SWITCHGRASS	5	7	5	5	1-2	0-2	0	0	5.5-8.0	GOOD
BLACKWELL	5	7	6	5	1-2					GOOD
COOL SEASON GRASSES										
SMOOTH BROMEGRASS	3	6	6	7	1	1-2	1-2	0-2	5.5-7.0	FAIR
ACHENBACH	3	6	7	7	1					FAIR
LINCOLN	3	6	7	7	1					FAIR
SOUTHLAND	3	6	7	7	1					FAIR
TALL FESCUE	0	5	6	4	1	1-2	1-2	0-2	6.2-7.0	POOR
KENTUCKY 31	0	5	7	4	1					POOR
WHEATGRASS										
INTERMEDIATE	4	6	5	4	1-2	1-2	1-2	0-	6.0-7.5	FAIR
SLATE	4	6	6	4	1-2					FAIR
TALL	5	7	5	4	1-2	1-2	1-2	0-	7.0-8.5	FAIR
JOSE	5	7	6	4	1-2					FAIR
WESTERN	6	8	4	5	1-3	0-1	0-1	0-	6.5-8.5	GOOD
BARTON	6	8	5	5	1-3					GOOD
LEGUMES										
ALFALFA (STANDARD)	2	7	10	8	1	0-1	1-3	1-3	6.5-8.0	GOOD
(RHIZOMATOUS)	1	6	7	8	1-2	0-1	1-3	1-2	6.5-8.0	GOOD

1 / ADAPTABILITY - 0=NOT ADAPTED, 1-3=POOR, 4-6=FAIR, 7-9=GOOD; N=NORTH OF THE SMOKY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES ONLY.

2 / SPECIES PRODUCTIVITY-- A POTENTIAL ANIMAL UNIT MONTH RATINGS FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9, SHOULD GIVE A POTENTIAL AUM PRODUCTIVITY RATINGS OF THIS SPECIES OR CULTIVAR ON THIS GROUP.

3 / GRAZING PREFERENCE - SCALE 1 - 8, (1=POOR, 8=EXCELLENT).

4 / STAND ESTABLISHMENT - NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.

5 / FERTILIZER NEEDS - 0=NONE; 1=10-50 POUNDS OF N, 20-40 POUNDS OF P, 20-40 POUNDS OF K; 2=50-100 POUNDS OF N, 40-60 POUNDS OF P, 40-70 POUNDS OF K; 3=100+ POUNDS OF N, 60+ POUNDS OF P, 70+ POUNDS OF K. THE FIRST CATEGORY IS WHAT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEGORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALWAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.

6 / PH RANGE - LOW AND HIGH PH RECOMMENDED FOR THE SPECIES.

SUITABILITY GROUP A-9

(Sandy Bottomland)

**Description:** Deep, well drained or excessively drained soils with sandy surfaces and subsoils. Soils in this subgroup have sandy surfaces and occur on bottomlands and receive extra water from upland drainage.

**Limitations:** Choice of plants is limited by droughtiness and low fertility. Soil blowing may be extremely hazardous during establishment and early growth.

**Soils:** Croft soils  
Las Animas loamy fine sand

**Recommended Species:** See chart on next page.

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SPECIES	SPECIES ADAPTABILITY 1 /		SPECIES PRODUCTIVITY 2 /	GRAZING PREFERENCE 3 /	STAND ESTABLISHMENT 4 /	FERTILIZER NEEDS 5 /			Ph RANGE 6 /	DROUGHT TOLERANCE
	DRYLAND	IRRIGATED				N	P	K		
WARM SEASON GRASSES										
BERTALASS GRASS	4	7	9	5	2-3	1-3	0-2	1-2	5.5-8.0	FAIR
HARDIE	4	7	9	4	2-3					FAIR
WIDLAND	4	7	9	5	2-3					FAIR
BIG BLUESTEM	6	7	5	7	2-3	0-1	0	0	6.0-7.5	FAIR-GOOD
KAW	6	7	6	7	2-3					FAIR-GOOD
EASTERN GAMAGRASS	4	8	10	8	2-4	0-3	0-2	0-1	5.5-7.5	FAIR
INDIAN GRASS	6	7	5	7	1-3	0-1	0	0	5.5-7.5	FAIR
CHEYENNE	6	7	6	7	1-3					FAIR
OSAGE	5	6	6	7	1-3					FAIR
PRAIRIE SANDREED	7	8	5	3	2-3	0-1	0-1	0-1	5.5-7.0	GOOD
BOSHEN	7	8	6	3	2-3					GOOD
SAND BLUESTEM	7	8	5	7	1-3	0-1	0-1	0-1	5.5-7.5	FAIR-GOOD
WOODWARD	7	8	6	7	1-3					FAIR-GOOD
SWITCHGRASS	6	7	5	5	1-2	0-2	0	0	5.5-8.0	GOOD
BLACKWELL	6	7	6	5	1-2					GOOD
COOL SEASON GRASSES										
ORCHARDGRASS	0	7	6	7	1-2	1-2	1-2	0-2	5.5-7.0	POOR
LATAR	0	7	7	7	1-2					POOR
REED CANARYGRASS	0	6	7	6	1-2	1-2	1-2	0-2	5.5-7.0	POOR
LOREED	0	6	8	6	1-2					POOR
RISE	0	5	8	6	1-2					POOR
SMOOTH BROMEGRASS	4	7	6	7	1	1-2	1-2	0-2	5.5-7.0	FAIR
ACHENBACH	4	7	7	7						FAIR
LINCOLN	4	7	7	7						FAIR
SOUTHLAND	4	7	7	7						FAIR
TALL FESCUE	0	7	6	4		1-2	1-2	0-2	6.2-7.0	POOR
KENTUCKY 31	0	7	7	4						POOR
WHEATGRASS										
INTERMEDIATE	0	7	5	4	1-2	1-2	1-2	0-1	5.0-7.5	FAIR
SLATE	0	7	6	4	1-2					FAIR
WESTERN	5	7	4	5	1-3	0-1	0-1	0-1	6.5-8.5	GOOD
BARTON	5	7	5	5	1-3					GOOD
LEGUMES										
ALFALFA (STANDARD)	4	8	10	8		0-1	1-3	1-3	6.5-8.0	GOOD
(RHIZOMATOUS)	3	7	7	8	1-2	0-1	1-3	1-2	6.5-8.0	GOOD

1 / ADAPTABILITY - 0=NOT ADAPTED, 1-3=POOR, 4-6=FAIR, 7-9=GOOD; N=NORTH OF THE SMOXY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES ONLY.

2 / SPECIES PRODUCTIVITY - A POTENTIAL ANIMAL UNIT MONTH RATING FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9, SHOULD GIVE A POTENTIAL AUM PRODUCTIVITY RATING OF THIS SPECIES OR CULTIVAR ON THIS GROUP.

3 / GRAZING PREFERENCE - SCALE 1 - 8, (1=POOR, 8=EXCELLENT).

4 / STAND ESTABLISHMENT - NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.

5 / FERTILIZER NEEDS - 0=NONE; 1=10-50 POUNDS OF N, 20-40 POUNDS OF P, 20-40 POUNDS OF K; 2=50-100 POUNDS OF N, 40-60 POUNDS OF P, 40-70 POUNDS OF K; 3=100+ POUNDS OF N, 60+ POUNDS OF P, 70+ POUNDS OF K. THE FIRST CATEGORY IS WHAT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEGORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALWAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.

6 / Ph RANGE - LOW AND HIGH Ph RECOMMENDED FOR THE SPECIES.

SUITABILITY GROUP C-1

(Wet Loamy)

Description: Deep, somewhat poorly or poorly drained soils with loamy surfaces and loamy to clayey subsoils. Soils in this subgroup occur on floodplains and terraces which receive extra moisture from adjoining areas.

Limitations: Seasonal wetness during a portion of the growing season.

Soils: Lesho clay loam  
Waldeck fine sandy loam  
Wann fine sandy loam  
Zenda loam, clay loam

Recommended Species: See chart on next page.

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RD: 79  
SUITABILITY GROUP: C-

SPECIES	SPECIES ADAPTABILITY 1 /		SPECIES PRODUCTIVITY 2 /	GRAZING PREFERENCE 3 /	STAND ESTABLISHMENT 4 /	FERTILIZER NEEDS 5 /			PH RANGE 6 /	DROUGHT TOLERANCE
	DRYLAND	IRRIGATED				N	P	K		
WARM SEASON GRASSES										
BERMUDAGRASS	5		9	5	2-3	1-3	0-2	1-2	5.5-8.0	FAIR
HARDIE	5		9	4	2-3					FAIR
MIDLAND	5		9	5	2-3					FAIR
BIG BLUESTEM	4		5	7	2-3	0-1	0	0	6.0-7.5	FAIR-GOOD
KAN	4		6	7	2-3					FAIR-GOOD
EASTERN BANGRASS	8		10	8	2-4	0-3	0-2	0-1	5.5-7.5	FAIR
INDIANGRASS	4		5	7	1-3	0-1	0	0	5.5-7.5	FAIR
CHEYENNE	4		6	7	1-3					FAIR
SWITCHGRASS	7		5	5	1-2	0-2	0	0	5.5-8.0	GOOD
BLACKWELL	7		6	5	1-2					GOOD
COOL SEASON GRASSES										
CREEPING FOXTAIL	6	-	6	7	1-2	1-2	1-2	0-2	5.5-7.0	POOR
GARRISON	6	-	7	7	1-2					POOR
ORCHARDGRASS	5	-	6	7	1-2	1-2	1-2	0-2	5.5-7.0	POOR
LATAR	5	-	7	7	1-2					POOR
REED CANARYGRASS	6	-	7	6	1-2	1-2	1-2	0-2	5.5-7.0	POOR
LOREED	6	-	8	6	1-2					POOR
RISE	6	-	8	6	1-2					POOR
TALL FESCUE	4	-	6	4		1-2	1-2	0-2	6.2-7.0	POOR
KENTUCKY 31	4	-	7	4						POOR
WHEATGRASS										
INTERMEDIATE	6		5	4	1-2	1-2	1-2	0-1	6.0-7.5	FAIR
SLATE	6		6	4	1-2					FAIR
TALL	8		5	4	1-2	1-2	1-2	0-1	7.0-8.5	FAIR
JOSE	8		6	4	1-2					FAIR
WESTERN	8		4	5	1-3	0-1	0-1	0-1	6.5-8.5	GOOD
BARTON	8		5	5	1-3					GOOD

1 / ADAPTABILITY - 0=NOT ADAPTED, 1-3=POOR, 4-6=FAIR, 7-9=GOOD; N=NORTH OF THE SMOKEY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES ONLY.

2 / SPECIES PRODUCTIVITY - A POTENTIAL ANIMAL UNIT MONTH RATING FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9, SHOULD GIVE A POTENTIAL AUM PRODUCTIVITY RATING OF THIS SPECIES OR CULTIVAR ON THIS GROUP.

3 / GRAZING PREFERENCE - SCALE 1 - 8, (1=POOR, 8=EXCELLENT).

4 / STAND ESTABLISHMENT - NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.

5 / FERTILIZER NEEDS - 0=NONE; 1=10-50 POUNDS OF N, 20-40 POUNDS OF P, 20-40 POUNDS OF K; 2=50-100 POUNDS OF N, 40-60 POUNDS OF P, 40-70 POUNDS OF K; 3=100+ POUNDS OF N, 60+ POUNDS OF P, 70+ POUNDS OF K. THE FIRST CATEGORY IS WHAT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEGORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALWAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.

6 / PH RANGE - LOW AND HIGH PH RECOMMENDED FOR THE SPECIES.



SUITABILITY GROUP C-3

(Subirrigated)

**Description:** Deep, somewhat poorly drained and poorly drained soils with loamy surfaces and subsoils. Surface and subsoil textures range from loamy sands to silty clay loams. A permanent water table is normally present from one to five feet below the surface.

**Limitations:** Soil saturation within the root zone restricts species selection. Wetness during the optimum seeding periods can hinder establishment. Water is at or near the surface during the winter and spring.

**Soils:** Dillwyn loamy fine sand, complex  
Kanza complex  
Kingman silty clay loam  
Platte soils, complex  
Plevna fine sandy loam, soils, complex  
Wet alluvial land

**Recommended Species:** See chart on next page.

SPECIES	SPECIES ADAPTABILITY 1 /		SPECIES PRODUCTIVITY 2 /	GRAZING PREFERENCE 3 /	STAND ESTABLISHMENT 4 /	FERTILIZER NEEDS 5 /			PH RANGE 6 /	DROUGHT TOLERANCE
	DRYLAND	IRRIGATED				N	P	K		
WARM SEASON GRASSES										
BIG BLUESTEM	8		3	7	2-3	0-1	0	0	6.0-7.5	FAIR-GOOD
KAN	8		6	7	2-3					FAIR-GOOD
EASTERN GAMAGRASS	9		10	8	2-4	0-3	0-2	0-1	5.5-7.5	FAIR
INDIANGRASS	7		5	7	1-3	0-1	0	0	5.5-7.5	FAIR
CHEYENNE	7		6	7	1-3					FAIR
OSAGE	6		6	7	1-3					FAIR
SWITCHGRASS	8		5	5	1-2	0-2	0	0	5.5-8.0	GOOD
BLACKWELL	8		6	5	1-2					GOOD
KANLON	7		8	4	1-2					POOR
COOL SEASON GRASSES										
CREeping FOXTAIL	4	-	6	7	1-2	1-2	1-2	0-2	5.5-7.0	POOR
GARRISON	4	-	7	7	1-2					POOR
ORCHARDGRASS	4	-	6	7	1-2	1-2	1-2	0-2	5.5-7.0	POOR
LATAH	4	-	7	7	1-2					POOR
REED CANARYGRASS	4	-	7	6	1-2	1-2	1-2	0-2	5.5-7.0	POOR
LOREED	4	-	8	6	1-2					POOR
RISE	4	-	8	6	1-2					POOR
TALL FESCUE	5	-	6	4		1-2	1-2	0-2	6.2-7.0	POOR
KENTUCKY 31	5	-	7	4						POOR
WHEATGRASS										
TR	8		5	4	1-2	1-2	1-2	0-1	7.0-8.5	FAIR
JOSE	8		6	4	1-2					FAIR
WESTERN	8		4	5	1-3	0-1	0-1	0-1	6.5-8.5	GOOD
BARTON	8		5	5	1-3					GOOD

1 / ADAPTABILITY - 0=NOT ADAPTED, 1-3=POOR, 4-6=FAIR, 7-9=GOOD; N=NORTH OF THE SMOXY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES ONLY.

2 / SPECIES PRODUCTIVITY - A POTENTIAL ANIMAL UNIT MONTH RATINGS FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9, SHOULD GIVE A POTENTIAL AUM PRODUCTIVITY RATING OF THIS SPECIES OR CULTIVAR ON THIS GROUP.

3 / GRAZING PREFERENCE - SCALE 1 - 8, (1=POOR, 8=EXCELLENT).

4 / STAND ESTABLISHMENT - NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.

5 / FERTILIZER NEEDS - 0=NONE; 1=10-50 POUNDS OF N, 20-40 POUNDS OF P, 20-40 POUNDS OF K; 2=50-100 POUNDS OF N, 40-60 POUNDS OF P, 40-70 POUNDS OF K; 3=100+ POUNDS OF N, 60+ POUNDS OF P, 70+ POUNDS OF K. THE FIRST CATEGORY IS WHAT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEGORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALWAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.

6 / PH RANGE - LOW AND HIGH PH RECOMMENDED FOR THE SPECIES.

SUITABILITY GROUP C-4

(Sandy Depression)

**Description:** Deep, somewhat poorly drained, and slowly permeable soils with loamy surfaces and clayey subsoils. Surface textures range from loamy fine sands to clay loams. Subsoils range from sandy clay loam to clays. Surface wetness or a seasonal water table is at or near the surface during the months of October through April.

**Limitations:** Wetness during the dormant season, poor drainage, and slow permeability restricts the species adapted to this subgroup. Temporary ponding and wet soils may hinder seedbed preparation and establishment.

**Soils:** Carwile fine sandy loam, soils, complex

**Recommended Species:** See chart on next page

SPECIES	SPECIES ADAPTABILITY 1 /		SPECIES PRODUCTIVITY 2 /	GRAZING PREFERENCE 3 /	STAND ESTABLISHMENT 4 /	FERTILIZER NEEDS 5 /			PH RANGE 6 /	DROUGHT TOLERANCE
	DRYLAND	IRRIGATED				N	P	K		
WARM SEASON GRASSES										
BERMUDAGRASS	5	0	9	5	2-3	1-3	0-2	1-2	5.5-8.0	FAIR
HARDIE	5	0	9	4	2-3					FAIR
MIDLAND	5	0	9	5	2-3					FAIR
BIG BLUESTEM	5	0	5	7	2-3	0-1	0	0	6.0-7.5	FAIR-GOOD
KAN	5	0	6	7	2-3					FAIR-GOOD
EASTERN BANGRASS	6	6	10	6	2-4	0-3	0-2	0-1	5.5-7.5	FAIR
INDIANGRASS	5	0	5	7	1-3	0-1	0	0	5.5-7.5	FAIR
CHEYENNE	5	0	6	7	1-3					FAIR
SAND BLUESTEM	5	0	5	7	1-3	0-1	0-1	0-1	5.5-7.5	FAIR-GOOD
WOODWARD	5	0	6	7	1-3					FAIR-GOOD
SWITCHGRASS	8	6	5	5	1-2	0-2	0	0	5.5-8.0	GOOD
BLACKWELL	8	6	6	5	1-2					GOOD
COOL SEASON GRASSES										
CREEPING FOXTAIL	5	7	6	7	1-2	1-2	1-2	0-2	5.5-7.0	POOR
GARRISON	5	7	7	7	1-2					POOR
TALL-FESCUE	6	6	6	4	1	1-2	1-2	0-2	6.2-7.0	POOR
KENTUCKY 31	6	6	7	4	1					POOR
WHEATGRASS										
INTERMEDIATE	4	0	5	4	1-2	1-2	1-2	0-1	6.0-7.5	FAIR
SLATE	4	0	6	4	1-2					FAIR
TALL	7	6	5	4	1-2	1-2	1-2	0-1	7.0-8.5	FAIR
JOSE	7	6	6	4	1-2					FAIR
WESTERN	7	6	4	5	1-3	0-1	0-1	0-1	6.5-8.5	GOOD
BARTON	7	6	5	5	1-3					GOOD

1 / ADAPTABILITY - 0=NOT ADAPTED, 1-3=POOR, 4-6=FAIR, 7-9=GOOD; N=NORTH OF THE SMOKY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES ONLY.

2 / SPECIES PRODUCTIVITY - A POTENTIAL ANIMAL UNIT MONTH RATING FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9, SHOULD GIVE A POTENTIAL AUM PRODUCTIVITY RATING OF THIS SPECIES OR CULTIVAR ON THIS GROUP.

3 / GRAZING PREFERENCE - SCALE 1 - 8, (1=POOR, 8=EXCELLENT).

4 / STAND ESTABLISHMENT - NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.

5 / FERTILIZER NEEDS - 0=NONE; 1=10-50 POUNDS OF N, 20-40 POUNDS OF P, 20-40 POUNDS OF K; 2=50-100 POUNDS OF N, 40-60 POUNDS OF P, 40-70 POUNDS OF K; 3=100+ POUNDS OF N, 60+ POUNDS OF P, 70+ POUNDS OF K. THE FIRST CATEGORY IS WHAT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEGORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALWAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.

6 / PH RANGE - LOW AND HIGH PH RECOMMENDED FOR THE SPECIES.

**SUITABILITY GROUP F-3**

**(Eroded Clay)**

- Description:** Deep, well drained to somewhat poorly drained, eroded soils with clayey or thin loamy surfaces and clayey subsoils.
- Limitations:** Stand establishment on these soils is very difficult due to clayey or thin surfaces. Low organic matter will limit fertility and plant production (causing difficult management decisions).
- Soils:** Bethany silty clay loam, eroded

**Recommended Species:** See chart on next page

LRA: 79  
SUITABILITY GROUP: F-3

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SPECIES	SPECIES ADAPTABILITY 1 /		SPECIES PRODUCTIVITY 2 /	GRAZING PREFERENCE 3 /	STAND ESTABLISHMENT 4 /	FERTILIZER NEEDS 5 /			PH RANGE 6 /	DROUGHT TOLERANCE
	DRYLAND	IRRIGATED				N	P	K		
WARM SEASON GRASSES										
BIG BLUESTEM	4	6	5	7	2-3	0-1	0	0	6.0-7.5	FAIR-GOOD
KAN	4	6	6	7	2-3					FAIR-GOOD
INDIANGRASS	4	6	5	7	1-3	0	0	0	5.5-7.5	FAIR
CHEYENNE	4	6	6	7	1-3					FAIR
GSAGE	3	6	6	7	1-3					FAIR
SIDEOTS GRAMA	5	6	3	5	1-3	0-1	0	0	6.0-7.5	GOOD
EL RENO	5	6	4	5	1-3					GOOD
SWITCHGRASS	5	6	5	5	1-2	0-2	0	0	5.5-8.0	GOOD
BLACKWELL	5	6	6	5	1-2					GOOD
COOL SEASON GRASSES										
WHEATGRASS										
FALL	4	6	5	4	1-2	1-2	1-2	0-1	7.0-8.5	FAIR
JOSE	4	6	6	4	1-2					FAIR
WESTERN	4	6	4	5	1-3	0-1	0-1	0-1	6.5-8.5	GOOD
BARTON	4	6	5	5	1-3					GOOD

1 / ADAPTABILITY - 0=NOT ADAPTED, 1-3=POOR, 4-6=FAIR, 7-9=GOOD; N=NORTH OF THE SMOKY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES ONLY.

2 / SPECIES PRODUCTIVITY - A POTENTIAL ANIMAL UNIT MONTH RATING FOR EACH CULTIVAR. THIS AUM FACTOR, FOR THE SPECIES, TIMES THE ADAPTABILITY FACTOR, DIVIDED BY 9, SHOULD GIVE A POTENTIAL AUM PRODUCTIVITY RATING OF THIS SPECIES OR CULTIVAR ON THIS GROUP.

3 / GRAZING PREFERENCE - SCALE 1 - 8, (1=POOR, 8=EXCELLENT).

4 / STAND ESTABLISHMENT - NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.

5 / FERTILIZER NEEDS - 0=NONE; 1=10-50 POUNDS OF N, 20-40 POUNDS OF P, 20-40 POUNDS OF K; 2=50-100 POUNDS OF N, 40-60 POUNDS OF P, 40-70 POUNDS OF K; 3=100+ POUNDS OF N, 60+ POUNDS OF P, 70+ POUNDS OF K. THE FIRST CATEGORY IS WHAT IS NEEDED TO MAINTAIN A HEALTHY STAND. THE SECOND CATEGORY IS THE HIGHEST AMOUNT EXPECTED TO GIVE A FAVORABLE RESPONSE ON DRYLAND. SOIL TEST RECOMMENDATIONS SHOULD ALWAYS BE USED ON IRRIGATED PASTURES AND OTHER INTENSIVELY MANAGED PASTURES.

6 / PH RANGE - LOW AND HIGH PH RECOMMENDED FOR THE SPECIES.

SUITABILITY GROUP F-4

(Clayey)

**Description:** Deep and moderately deep, well drained to somewhat poorly drained soils with loamy or clayey surfaces and clayey subsoils. (If surface texture is loamy, it is less than 14 inches over dense clayey subsoil.)

**Limitations:** Slowly or very slowly permeable clayey subsoils

**Soils:** Bethany silt loam  
Blanket silt loam  
Lubbock silt loam  
Tabler loam, clay loam, complex

**Recommended Species:** See chart on next page.

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LRA: 79  
SUITABILITY GROUP:

SPECIES	SPECIES ADAPTABILITY 1 /		SPECIES PRODUCTIVITY 2 /	GRAZING PREFERENCE 3 /	STAND ESTABLISHMENT 4 /	FERTILIZER NEEDS 5 /			PH RANGE 6 /	BROUGHT TOLERANCE
	DRYLAND	IRRIGATED				N	P	K		
WARM SEASON GRASSES										
BIG BLUESTEM	5	7	5	7	2-3	0-1	0	0	6.0-7.5	FAIR-GOOD
KAW	5	7	6	7	2-3					FAIR-GOOD
INDIANGRASS	5	7	5	7	1-3	0-1	0	0	5.5-7.5	FAIR
CHEYENNE	5	7	6	7	1-3					FAIR
OSAGE	4	7	6	7	1-3					FAIR
SIDEOTS GRAMA	6	7	3	5	1-3	0-1	0	0	6.0-7.5	GOOD
EL RENO	6	7	4	5	1-3					GOOD
SWITENGRASS	5	7	5	5	1-2	0-2	0	0	5.5-8.0	GOOD
BLACKWELL	5	7	6	5	1-2					GOOD
COOL SEASON GRASSES										
SMOOTH BRODERGRASS	3	6	6	7	1	1-2	1-2	0-2	5.5-7.0	FAIR
ACHENBACH	3	6	7	7	1					FAIR
LINCOLN	3	6	7	7	1					FAIR
SOUTHLAND	3	6	7	7	1					FAIR
TALL FESCUE	2	7	6	4	1	1-2	1-2	0-2	6.2-7.0	POOR
KENTUCKY 31	2	7	7	4	1					POOR
WHEATGRASS										
TALL	5	6	5	4	1-2	1-2	1-2	0-1	7.0-8.5	FAIR
JOSE	5	6	6	4	1-2					FAIR
WESTERN	6	7	4	5	1-3	0-1	0-1	0-1	6.5-8.5	GOOD
BARTON	6	7	5	5	1-3					GOOD

1 / ADAPTABILITY - 0=NOT ADAPTED, 1-3=POOR, 4-6=FAIR, 7-9=GOOD: N=NORTH OF THE SMOXY HILL AND KANSAS RIVERS; S=ADAPTED IN SOUTHERN COUNTIES ONLY.

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6 / PH RANGE - LOW AND HIGH PH RECOMMENDED FOR THE SPECIES.



SUITABILITY GROUP G-3

(Wet Sodic)

- Description: Deep, somewhat poorly or poorly drained loamy soils with a high sodium absorption ratio. The subsoils range from sandy to clayey and contain a high water table during the winter and/or spring months.
- Limitations: Choice of plants is limited by high sodium content and moderate salinity. Wetness during a portion of the growing season is common.
- Soils: Drummond complex  
Natrustolls  
Zenda saline, complex

Recommended Species: See chart on next page

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LRA: 79  
SUITABILITY GROUP: G-3

-2-

SPECIES	SPECIES ADAPTABILITY 1 /		SPECIES PRODUCTIVITY 2 /	GRAZING PREFERENCE 3 /	STAND ESTABLISHMENT 4 /	FERTILIZER NEEDS 5 /			PH RANGE 6 /	DROUGHT TOLERANCE
	DRYLAND	IRRIGATED				N	P	K		
WARM SEASON GRASSES										
ALKALI SACATON	6	0	4	2	2-3	0-1	0	0	6.5-8.0	GOOD
SALTALK	6	0	5	2	2-3					GOOD
SWITCHGRASS	7	0	5	5	1-2	0-2	0	0	5.5-8.0	GOOD
BLACKWELL	7	0	6	5	1-2					GOOD
COOL SEASON GRASSES										
WHEATGRASS										
TALL	7	0	5	4	1-2	1-2	1-2	0-1	7.0-8.5	FAIR
JBSE	7	0	6	4	1-2					FAIR
WESTERN	5	0	4	5	1-3	0-1	0-1	0-1	6.5-8.5	GOOD
BARTON	5	0	5	5	1-3					GOOD

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4 / STAND ESTABLISHMENT - NUMBERS = APPROXIMATE YEARS FOR ESTABLISHMENT.

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6 / PH RANGE - LOW AND HIGH PH RECOMMENDED FOR THE SPECIES.

SUITABILITY GROUP H

(Not Suitable)

Description: This group includes various textures and phases of soils and land types which occur on a wide range of slopes and topography.

Limitations: Soils in this group are generally too shallow, erosive, gravelly, stony, or rocky; too steep, droughty, wet, clayey, or saline and alkaline for good survival or growth of pasture species.

Soils: Blowout land  
Sandy breaks

Recommended Species: See Standards and Specifications for Critical Area Planting (342).

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